



# Dirt Made Our Lunch\*

---



## Lesson Overview

This lesson is designed to teach students about the connection between soil and food. The central activity, Deconstructing a Cheeseburger, asks students to help trace ingredients back to the soil, showing how we depend on healthy soil in order to eat. Many of the nutrients in soil come from decomposition of dead plants and other organic matter. Plants absorb these nutrients, and in turn, our bodies absorb them when we eat plants. We refer to this as the nutrient cycle. The Lunch Makes Our Dirt activity helps students understand how food scraps and plant matter break down into rich soil.

## Objectives

Students will:

1. Trace foods from origin to table  
(Ag Ed D.4.1; Nutrition Ed B.4.4; Science F.4.4)
2. Describe the connection between healthy soil and healthy food  
(Ag Ed D.4.1; Science F.4.2, F.4.4)
3. Understand that people need food in order to be healthy, have energy, and grow (Nutrition Ed A.4.3)
4. Determine the difference between plant and animal food sources  
(Nutrition Ed F.4.3)
5. Identify the basic food groups and give examples from each  
(Nutrition Ed F.4.4)

## Materials

Food:

- Dill, cucumbers, mustard seed, peppercorns, vinegar, water and salt.  
See Kids' Garden Refrigerator Pickles recipe listed in the Tasting activity on page 17.

\* Lesson inspired by "Dirt Made My Lunch," a song by "Solar" Steve Van Zandt of the Banana Slug String Band.



### Supplies:

- Photos or drawings that illustrate how common cheeseburger ingredients can be traced back to the soil (e.g., bun, wheat, soil. See Deconstructing a Cheeseburger activity on page 16 for full list of images needed).
- Garden journals or paper
- Pens/pencils
- Display board
- Plates
- Napkins
- Cutting boards
- Bowl
- Knives
- 2 quart-sized Mason jars or similar sized plastic containers with lids

### Preparation

1. Familiarize yourself with "Dirt Made My Lunch," a fun and educational song by "Solar" Steve Van Zandt of the Banana Slug String Band. To watch a video of the Banana Slug String Band singing "Dirt Made My Lunch," go to [www.youtube.com/watch?v=SCeyXW64cns](http://www.youtube.com/watch?v=SCeyXW64cns). To watch youth gardeners from Troy Gardens in Madison, Wisconsin singing this song, go to [www.youtube.com/watch?v=ZrieCG8D2Wl&feature=youtupe\\_gdata](http://www.youtube.com/watch?v=ZrieCG8D2Wl&feature=youtupe_gdata). You can order songbooks and CDs of many great educational garden and nature songs, including "Dirt Made My Lunch," from the Banana Slug String Band at [www.bananaslugstringband.com](http://www.bananaslugstringband.com).
2. Get photos or drawings that illustrate how common cheeseburger ingredients can be traced back to the soil (e.g., bun, wheat, soil. See Deconstructing a Cheeseburger activity for full list of images needed).
3. Collect pens or pencils and make or purchase garden journals for the Lunch Makes Our Dirt activity. See Keeping a Garden Journal on page 38 in the À La Carte section for garden journal ideas.
4. Harvest or purchase – and wash – food for Kids' Garden Refrigerator Pickles recipe listed in the Tasting activity.



### reciprocal nature of gardening

Gardening is a gateway to healthy eating. When children have the opportunity to experience how food connects us to the natural world they are much more willing to try and enjoy new fruits and vegetables. The reciprocal relationship of nurturing plants so that they in turn can nurture us with food is a marvelous and powerful thing to take part in.



— Brent Kramer,  
Education Coordinator,  
Wisconsin Homegrown Lunch  
REAP Food Group

### fun idea

Emphasize the concept of the nutrient cycle by feeding plants in your garden. Encourage students to use their hands to place compost or other nutrient-rich soil at the base of a plant and say "Bon Appétit!"



## Procedure

**Song – Dirt Made My Lunch.** Sing along with “Dirt Made My Lunch” by “Solar” Steve Van Zandt of the Banana Slug String Band.

**Introduction:** Briefly discuss the importance of soil with a series of questions: Could we have plants without dirt? Could we have food without plants? Could we have food without dirt? If doing this lesson in the garden, have students scoop up a handful of dirt and examine it during this discussion. Leave questions open-ended as a set-up for using the Deconstructing a Cheeseburger activity to prove that “dirt made our lunch!”

## Deconstructing a Cheeseburger

**Students help prove how “dirt made our lunch.”**

Draw columns on a display board for several cheeseburger ingredients and place the appropriate image at the top of the column (bun, burger, cheese, pickle, tomato, and avocado). Then, taking one cheeseburger ingredient at a time, challenge the class to trace each ingredient back to the soil. Hand out images for students to post on the display board as you connect each ingredient to the soil. For example, the cheese pictures would include cheese, milk, cow, grass, and soil. For a pickle, use a picture of a pickle at the top of the column and then a bottle of vinegar, cucumber, a cucumber plant, a dill plant, and soil. Here’s an example of the chart:

BUN	BURGER	CHEESE	PICKLE	TOMATO	AVOCADO
Flour	Beef	Milk	Vinegar	Tomato Plant	Avocado Tree
Wheat	Cow	Cow	Cucumber	Soil	Soil
Soil	Grass	Grass	Cucumber Plant		
	Soil	Soil	Dill Plant		
			Soil		

**Lunch Makes Our Dirt.** Look for stages of decomposition in your garden and/or compost pile. For example, follow the decomposition of overripe fruits and vegetables periodically (e.g., 3 days, 3 weeks, 3 months) throughout the season or of a carved pumpkin after Halloween. Have students document the stages using photos or garden journals. See *Keeping a Garden Journal* on page 38 in the À La Carte section for garden journal ideas.

If you are doing this in a classroom and don’t have a school compost pile, bring in some items in various stages of decomposition from your home compost pile. Use recycled clear plastic containers or paper plates to demonstrate several decomposition stages. Or start a school composting project! You can also compost in a bag. Put food scraps, dried leaves, small plant parts, etc. in a zip top bag, mist with water and watch the process of decomposition take place.



**Tasting.** Remember to have students wash or sanitize their hands. Make fresh pickles with cucumbers from your garden or local market following the Kids' Garden Refrigerator Pickles recipe below. See the Cooking & Eating in the Garden section on page 47 for additional tips for this and other recipes.

## Kids' Garden Refrigerator Pickles

Pickle recipe can also be found on page 50.

### Supplies:

- Two quart size jars with lids
- 1 cup dill (flowers, seeds, and stems all work)
- 5-6 medium cucumbers
- 4 pinches of mustard seed
- 6 black peppercorns
- ½ cup of vinegar
- 2 cups of water
- 8 teaspoons salt

Harvest, wash, and slice the cucumbers into wedges. Place them in a bowl with the dill and salt, and mix them by hand or with a mixing spoon. Using two mason jars, add to each 2 pinches of mustard seed, 3 peppercorns, ¼ cup of vinegar, and one cup of water. Add half of the dill/salt/cucumber mixture to each jar. Seal the lid and mix the pickles until you can't wait any longer to eat them (minimum 10 minutes). If you have leftovers, check with your local food safety specialist to see how long they keep.

**For Younger Children (Pre K):** Have students color in the MyPyramid to match the ingredients of the cheeseburger. Orange: Bun (Grains), Green: Tomato and Pickle (Vegetables), Red: Avocado (Fruit), Blue: Cheese (Milk/Dairy), Purple: Burger (Meat and Beans). You can find MyPyramid at [www.mypyramid.gov](http://www.mypyramid.gov).

**For Older Children (3rd to 5th grade):** Have students match the cheeseburger ingredients to the appropriate MyPyramid food groups. Of the foods we eat, ask students to identify which of them are plants or parts of a plant? You can find MyPyramid at [www.mypyramid.gov](http://www.mypyramid.gov).

## Take Home Activity

Give students another common food to deconstruct (e.g., peanut butter and jelly sandwich, spring roll, pizza, burrito, chips and salsa). Have them demonstrate how to do this activity for their parents/caregivers. Follow up the next day with a discussion about how to make healthy versions of foods like pizza. For example, make pizza with a whole-wheat crust, increase the amount of vegetables, and decrease the amount of meat. Or make burritos with less meat and cheese and more vegetables (e.g., zucchini, onions, garlic, shredded carrot, mashed sweet potato or butternut squash, lettuce, tomatoes, beans).



## cross curriculum benefits

There are so many ways that you can apply what we do in the garden in the classroom. There's integration all throughout the curriculum: mathematics, science, art, music. And to see them realize "Oh, this thing that I saw last week is now this much bigger or it moved from this flower and now it's creating, what? What it is creating? Oh it's creating a tomato, it's creating a zucchini, it's creating—whatever." That is thrilling to see happen; to see that realization come over kids. There's the stark contrast of seeds sitting on stalks in the middle of winter, as well as the compost that's out there decomposing and creating heat; you can measure the heat, you can see the snow melting from the top. It can be an all year process—it's just wonderful that way.



— Ken Swift, Teacher,  
Lopham Elementary School,  
Madison Metropolitan  
School District